TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	25-05-2022
Type of Mix	:	DBM
Sample I/D	:	DBM-1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	895	934
2. Weight of Mixture after extraction, g	857	893
3. Weight of Bitumen	38	41
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	40.00	43.00
8. Bitumen content in %	4.47	4.60
9. Average Bitumen content in %	4.54	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION

(As per MORT&H 500-10,Grading-2)

Sample Location:	Slv green appartment Road	**Date of Sampling:**	25-05-2022
		Date of testing:	25-05-2022
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	857

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	41.0	41.0	4.78	95.22	90-100
19.00	129.0	170.0	19.84	80.16	71-95
13.20	117.0	287.0	33.49	66.51	56-80
4.750	160.0	447.0	52.16	47.84	38-54
2.360	105.0	552.0	64.41	35.59	28-42
0.300	183.0	735.0	85.76	14.24	7-21
0.075	65.0	800.0	93.35	6.65	2-8
Pan	62.0	862.0			
Total	857.0				

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4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)

Proposed Use	DBM	**Date of Sampling**	25-05-2022
Sample Location	At plant	**Date of Testing**	25-05-2022

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	377.00	366.00	384.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	285.00	273.00	292.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	92.00	93.00	92.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	24.40	25.41	23.96	
5	Average Aggregate impact value	(%)	24.59			Max - 30 %

Remarks : ✓ Satisfactory / Not Satisfactory

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Sri.A G Narayana Swamy.
Date of Testing :	26-05-2022
Type of Mix :	Tack coat
Sample I/D :	5
Location :	Thirumenalli main Road

Determination	**Unit**	**Test No**		
		1	**2**	**3**
Location :	**Chainage**	**@15**	**@45**	**@60**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.759	0.792	0.781
Final weight of plate after application of tack Coat (c)	Kg	0.782	0.815	0.804
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.251	0.251	0.252
Average	Kg/sq.m	0.251		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	26-05-2022
Type of Mix	:	BC
Sample I/D	:	BC2

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	895	952
2. Weight of Mixture after extraction, g	848	900
3. Weight of Bitumen	47	52
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	49.10	53.85
8. Bitumen content in %	5.49	5.66
9. Average Bitumen content in %	**5.57**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	Thirumenalli main road	Date of Sampling:	**26-05-2022**
		Date of testing:	**26-05-2022**
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	848.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	85	85.0	10.02	89.98	79 - 100
9.50	123	208.0	24.53	75.47	71 - 95
4.75	108	316.0	37.26	62.74	53 - 71
2.360	112	428.0	50.47	49.53	42 - 58
1.180	105	533.0	62.85	37.15	34 - 48
0.600	75	608.0	71.70	28.30	26 - 38
0.300	78	686.0	80.90	19.10	18 - 28
0.150	49	735.0	86.67	13.33	12 - 20
0.075	68	803.0	94.69	5.31	4 - 10
Pan	45.0	848.0			
Total	848.0				

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Developments works to be under taken in Ward No 05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	26-05-2022
Type of Mix	:	BC
Sample I/D	:	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	898	952
2. Weight of Mixture after extraction, g	851	901
3. Weight of Bitumen	47	51
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	49.10	52.85
8. Bitumen content in %	5.47	5.55
9. Average Bitumen content in %	5.51	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	SLV Green appartment road	Date of Sampling:	26-05-2022
Type of material & Purpose:	BC	Date of testing:	26-05-2022
		Oven Dry Wt.(gms):	851.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.0	0	0	0.00	100.00	100.00
13.20	83	83.0	9.75	90.25	79 - 100
9.50	126	209.0	24.56	75.44	71 - 95
4.75	101	310.0	36.43	63.57	53 - 71
2.360	113	423.0	49.71	50.29	42 - 58
1.180	106	529.0	62.16	37.84	34 - 48
0.600	73	602.0	70.74	29.26	26 - 38
0.300	75	677.0	79.55	20.45	18 - 28
0.150	48	725.0	85.19	14.81	12 - 20
0.075	68	793.0	93.18	6.82	4 - 10
Pan	58.0	851.0			
Total	851.0				

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Developmental works to be undertaken at Ward No: 91 at BBMP ground Solid Waste Disposal Processing units Dodsahalli, Bagalkot and Kathigenahalli Botanical mapping Constituency
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. A.H.Narayana Swamy
Date of Testing	:	26-05-2023
Type of Mix	:	BC
Sample I/D	:	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	998	953
2. Weight of Mixture after extraction, g	851	901
3. Weight of Bitumen	147	51
4. Weight of filler paper before extraction, g	3.00	2.13
5. Weight of filler paper after extraction, g	1.10	1.00
6. Weight of fines, g	1.10	1.83
7. Weight of Bitumen & fines	49.10	52.83
8. Bitumen content in %	5.47	5.53
9. Average Bitumen content in %	5.51	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	Sl. V Cross apartment road		Date of Sampling:	26-05-2023	
			Date of testing:	26-05-2023	
Type of material & Purpose:	BC		Oven Dry Wt (gms):	851.0	
IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19	0	0	0.00	100.00	100.00
13.2	83	83.0	9.75	90.25	79 - 100
9.5	126	209.0	24.56	75.44	71 - 95
4.75	101	310.0	36.43	63.57	53 - 71
2.36	113	423.0	49.71	50.29	42 - 58
1.18	106	529.0	62.16	37.84	34 - 48
0.600	73	602.0	70.74	29.26	26 - 38
0.300	75	677.0	79.55	20.45	18 - 28
0.150	48	725.0	85.19	14.81	12 - 20
0.075	68	793.0	93.18	6.82	4 - 10
Pan	58.0	851.0			
Total	851.0				

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Sri.A G Narayana Swamy.
Date of Testing :	26-05-2022
Type of Mix :	Tack coat
Sample I/D :	1
Location :	SLV Green appartment road

Determination	**Unit**	**Test No**		
		1	2	3
Location :	**Chainage**	**@15**	**@30**	**@50**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.789	0.791	0.806
Final weight of plate after application of tack Coat (c)	Kg	0.812	0.814	0.829
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.253	0.253	0.254
Average	Kg/sq.m	0.254		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)

Proposed Use	BC	**Date of Sampling**	26-05-2022
Sample Location	At plant	**Date of Testing**	26-05-2022

Sl. No.	Description		Test No.			Spec Limit (%)
			1	2	3	
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	373.00	360.00	343.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	281.00	272.00	259.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	92.00	88.00	84.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	24.66	24.44	24.49	
5	Average Aggregate impact value	(%)	24.53			Max - 30 %

Remarks : ✓ Satisfactory / Not Satisfactory

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Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material	BC		**Proposed Use**	BC
Sample Location	At plant		**Date of Sampling**	26-05-2022
			Date of Testing	26-05-2022

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A) gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	967	89	963	76
16.0	12.5	1307	111	1241	122
12.5	10.0	520	78	436	58
10.0	6.3	490	65	422	60
Total		**3284**	**343**	**3062**	**316**

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	10.44
Elongation Index(%):	10.32
Combined FI+EL (%)	20.76

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Sri.A G Narayana Swamy.
Date of Testing :	30-05-2022
Type of Mix :	Tack coat
Sample I/D :	2
Location :	srinivasa garden 2nd cross road

Determination	Unit	Test No		
		1	2	3
Loacation	**Chainage**	**@15**	**@30**	**@45**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.788	0.805	0.778
Final weight of plate after application of tack Coat (c)	Kg	0.811	0.828	0.801
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.252	0.253
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Sri.A G Narayana Swamy.
Date of Testing :	30-05-2022
Type of Mix :	Tack coat
Sample I/D :	1
Location :	Lakshmayya garden layout road

Determination	**Unit**	**Test No**		
		1	2	3
Loacation	**Chainage**	**@30**	**@60**	**@90**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.780	0.820	0.778
Final weight of plate after application of tack Coat (c)	Kg	0.803	0.843	0.801
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.253	0.252	0.254
Average	Kg/sq.m	0.253		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)

Proposed Use	BC	**Date of Sampling**	**30-05-2022**
Sample Location	At plant	**Date of Testing**	**30-05-2022**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	378.00	363.00	341.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	282.00	271.00	257.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	96.00	92.00	84.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	25.40	25.34	24.63	
5	Average Aggregate impact value	(%)	25.12			Max - 30 %

Remarks : ✓ Satisfactory / Not Satisfactory

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Project	Arrangement works to be under taken in Ward No 05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Nagadhenu and Kurubarahalli Byrathi Bangalore Urban District
Client	Mythri Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	M/s A G Elevators Secunderabad

FLAKINESS AND ELONGATION INDICES (IS 2386, PART I)

Type of Material	BC		Proposed Use	BC
Sample Location	At plant		Date of Sampling	30-05-2022
			Date of Testing	30-05-2022

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	938	86	962	76
16.0	12.5	1308	112	1241	120
12.5	10.0	523	78	436	58
10.0	6.3	498	68	425	60
Total		3387	344	3064	314

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	10.47
Elongation Index(%):	10.25
Combined FI+EI: (%)	20.71

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BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	30-05-2022
Type of Mix	:	DBM
Sample I/D	:	DBM-2

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	895	937
2. Weight of Mixture after extraction, g	855	896
3. Weight of Bitumen	40	41
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	42.00	43.00
8. Bitumen content in %	4.69	4.59
9. Average Bitumen content in %	4.64	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION

(As per MORT&H 500-10,Grading-2)

Sample Location:	srinivasa garden 1st cross road	**Date of Sampling:**	30-05-2022
		Date of testing:	30-05-2022
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	855

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	41.0	41.0	4.80	95.20	90-100
19.00	129.0	170.0	19.88	80.12	71-95
13.20	117.0	287.0	33.57	66.43	56-80
4.750	161.0	448.0	52.40	47.60	38-54
2.360	105.0	553.0	64.68	35.32	28-42
0.300	185.0	738.0	86.32	13.68	7-21
0.075	65.0	803.0	93.92	6.08	2-8
Pan	62.0	865.0			
Total	855.0				

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Test Report on Compressive Strength of Concrete Cubes

Project	Development works to be under taken in ward no.5 of BBMP around solidwaste disposal procesing units bellalli bagaluru and kattigenalli , byatarayanapura constituncy ,
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri.A G. Narayana Swamy.
Location:	Cement
Grade of concrete:	M30
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Sample Location	Noor nagar cross road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	30-05-2022	06-06-2022	7 days	8.824	22500	410	18.22	18.92
2	30-05-2022	06-06-2022	7 days	8.832	22500	417	18.53	
3	30-05-2022	06-06-2022	7 days	8.870	22500	450	20.00	

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G. Narayana Swamy.
Total Weight:	10000 gms

SIEVE ANALYSIS

Type of Material	20 mm down size	**Proposed Use**	Concrete
Sample Location	At Plant	**Date of Sampling**	30-05-2022
		Date of Testing	30-05-2022

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	278	278	2.78	97.22	95 - 100
10.00 mm	4652	4930	49.30	50.70	25 - 55
4.75 mm	4582	9512	95.12	4.88	0 - 10
Pan	488	10000			

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TEST REPORT

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Clients	Bruhat Bangalore Mahanagara Palike
Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G. Narayana Swamy.
Total Weight:	10000 gms

SIEVE ANALYSIS

Type of Material	12.5 mm down size		Proposed Use	Concrete	
Sample Location	Plant		Date of Sampling	30-05-2022	
			Date of Testing	30-05-2022	
IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	572	572	5.72	94.28	90-100
10.0	3342	3914	39.14	60.86	40-85
4.75	5420	9334	93.34	6.66	0-10
Pan	666	10000			

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Project	Developments works to be under taken in Ward No.95 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagalaru and Kattigenahalli Byatarayanapura Constituency.
Client	Brihat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material	DBM	Proposed Use	DBM
Sample Location	At plant	Date of Sampling	30-05-2022
		Date of Testing	30-05-2022

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	7397	673	7661	342
31.5	25.0	4258	234	3569	285
25.0	20.0	2461	248	1865	220
20.0	16.0	1544	330	966	261
16.0	12.5	588	111	460	196
12.5	10.0	498	72	275	95
10.0	6.3	139	84	84	65
Total		16885	1752	14280	1464

Results

Flakiness Index(%):	10.38
Elongation Index(%):	10.25
Combined FI+EL (%)	20.63

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Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material	DBM	**Proposed Use**	**DBM**
Sample Location	At plant	**Date of Sampling**	**30-05-2022**
		Date of Testing	**30-05-2022**

Size of aggregate		**Flakiness Index**		**Elongation Index**	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A) gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	7397	673	7061	342
31.5	25.0	4258	234	3569	285
25.0	20.0	2461	248	1865	220
20.0	16.0	1544	330	966	261
16.0	12.5	588	111	460	196
12.5	10.0	498	72	275	95
10.0	6.3	139	84	84	65
Total		**16885**	**1752**	**14280**	**1464**

Results

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Elongation Index(%):	10.25
Combined FI+EL (%)	20.63

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri A G. Narayana Swamy.

SIEVE ANALYSIS

Total Weight:	3000 gms				
Type of Materia	M sand		Proposed Use	Concrete	
Sample Location	At Plant		Date of Sampling	30-05-2022	
			Date of Testing	30-05-2022	
IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	230	230	7.67	92.33	90 - 100
2.36 mm	280	510	17.00	83.00	75 - 100
1.18 mm	512	1022	34.07	65.93	55 - 90
0.600 mm	546	1568	52.27	47.73	35 -59
0.300 mm	662	2230	74.33	25.67	8-30
0.150 mm	536	2766	92.20	7.80	0 - 10
Pan	234	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

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Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G. Narayana Swamy.

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	M sand	Proposed Use	Concrete
Location/Source	At Plant/site	Date of Sampling	30-05-2022
Period of Soaking	24 hours	Date of Testing	30-05-2022

Sl. No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.		662	640	670	
B	Weight of oven - dry sample gm.		653	632	662	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1692	1678	1696	
E	Bulk specific gravity	B	2.665	2.667	2.659	2.664
		(C + A - D)				
G	Absorption (%)	(A - B) *100	1.378	1.266	1.208	1.284
		B				

Remarks : Satisfactory / Not Satisfactory

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Test Report on Cement

TEJUS

Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri.A G. Narayana Swamy.
Sample ID	Cement (OPC 43 Grade)
Date of Sample Tested	30-05-2022
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	104 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	426 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	5mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	28.00%	
Remarks :			Satisfactory / Not Satisfactory	

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